What Is Claimed Is:

1   1. A system of real-time interaction for multiple objects,

2   comprising:

3   a scene dividing module for dividing a main scene into a

4   first scene and a second scene, and determining the adjacent area

5   of the first scene and the second scene;

6   a first control unit for controlling at least one object

7   in the first scene;

8   a second control unit for controlling at least one object

9   in the second scene; and

10   a synchronization module to enable the first control unit

11   to synchronize with the second control unit if the status

12   incidence of the objects controlled by the first control unit

13   and/or the second control unit overlaps the adjacent area of the

14   first scene and the second scene.

1   2. The system as claimed in claim 1 wherein the scene

2   dividing module further divides the first scene into a first

3   sub-scene and a second sub-scene if the number of objects

4   controlled by the first control unit is more than a load

5   threshold.

1   3. The system as claimed in claim 2 wherein the objects

2   in the first sub-scene are controlled by the first control unit,

3   and the objects in the second sub-scene are controlled by a third

4   control unit.

1   4.   The system as claimed in claim 1 wherein the objects
2   controlled by the first control unit are taken over by a third
3   control unit if a failure occurs in the first control unit.

1   5.   The system as claimed in claim 1 wherein the scene
2   dividing module divides the main scene into the first scene and
3   the second scene according to the potential visible set and grid.

1   6.   The system as claimed in claim 1 wherein the first
2   control unit and/or the second control unit are responsible for
3   handling the behavior of objects.

1   7.   The system as claimed in claim 1 wherein the first
2   control unit and/or the second control unit are responsible for
3   handling the interaction between objects.

1   8.   The system as claimed in claim 1 wherein the first
2   control unit and/or the second control unit are responsible for
3   handling the events produced by scenes.

1   9.   An method of real-time interaction for multiple
2   objects, comprising the steps of:
3   dividing a main scene into a first scene and a second scene,
4   and determining the adjacent area of the first scene and the
5   second scene;
6   controlling at least one object in the first scene by a
7   first control unit, and at least one object in the second scene
8   by a second control unit; and
9   synchronizing the first control unit with the second
10   control unit if the status incidence of the objects controlled

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11 by the first control unit and/or the second control unit overlaps

12 the adjacent area of the first scene and the second scene.

1   10. The method as claimed in claim 9 further dividing the

2   first scene into a first sub-scene and a second sub-scene if the

3   number of objects controlled by the first control unit is more

4   than a load threshold.

1   11. The method as claimed in claim 10 further comprising

2   controlling the objects in the first sub-scene by the first

3   control unit, and the objects in the second sub-scene by a third

4   control unit.

1   12. The method as claimed in claim 9 further comprising

2   taking over the objects controlled by the first control unit by

3   a third control unit if a failure occurs in the first control

4   unit.

1   13. The method as claimed in claim 9 wherein the main scene

2   is divided into the first scene and the second scene according

3   to the potential visible set and grid.

1   14. The method as claimed in claim 9 wherein the first

2   control unit and/or the second control unit are responsible for

3   handling the behavior of objects.

1   15. The method as claimed in claim 9 wherein the first

2   control unit and/or the second control unit are responsible for

3   handling the interaction between objects.

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1   16.   The method as claimed in claim 9 wherein the first

2   control unit and/or the second control unit are responsible for

3   handling the events produced by scenes.